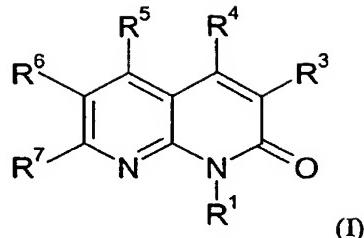


**Claims**

What is claimed:

1. A compound of the formula



wherein

R<sup>1</sup> is selected from alkyl of 1-8 carbon atoms, alkenyl of 2-8 carbon atoms, alkynyl of 2-8 carbon atoms, and A-R<sup>9</sup>,

or

R<sup>1</sup> is selected from aryl of 6-10 carbon atoms, heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, cycloalkyl of 3-8 carbon atoms, cycloalkenyl of 4-8 carbon atoms, 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), all of which may be substituted with 1-3 of R<sup>10</sup>;

R<sup>10</sup> is selected from nitro, nitrile, hydroxy, halogen, acyl of 1-6 carbon atoms, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms, haloalkoxy of 1-6 carbon atoms, cycloalkoxy of 3-6 carbon atoms, aryl of 6-10 carbon atoms, heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, NR<sup>11</sup>R<sup>12</sup>, C(=O)OR<sup>11</sup>, C(=O)NHR<sup>11</sup>, NHC(=O)R<sup>13</sup>, NHS(=O)<sub>2</sub>R<sup>13</sup>, S(=O)<sub>0-2</sub>R<sup>13</sup>, S(=O)<sub>2</sub>NHR<sup>11</sup>, cycloalkyl of 3-6 carbon atoms, cycloalkenyl of 3-6 carbon atoms, 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused

with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O);

R<sup>13</sup> is selected from alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, cycloalkyl of 3-6 carbon atoms, and cycloalkenyl of 4-6 carbon atoms;

R<sup>11</sup> and R<sup>12</sup> are independently selected from hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, cycloalkyl of 3-6 carbon atoms, and cycloalkenyl of 4-6 carbon atoms;

A is selected from alkyl of 1-8 carbon atoms, alkenyl of 2-8 carbon atoms, alkynyl of 2-8 carbon atoms, and haloalkyl of 1-8 carbon atoms;

R<sup>9</sup> is selected from hydroxy, alkoxy of 1-6 carbon atoms, cycloalkoxy of 3-6 carbon atoms, O-A-R<sup>14</sup>, NR<sup>11</sup>R<sup>12</sup>; or

R<sup>9</sup> is selected from aryl of 6-10 carbon atoms, heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, cylcoalkyl of 3-8 carbon atoms, cycloalkenyl of 5-8 carbon atoms, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>9</sup> is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>14</sup> is selected from cylcoalkyl of 3-8 carbon atoms, cycloalkenyl of 5-8 carbon atoms, 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, all of which may be substituted with 1-3 of R<sup>10</sup>;

R<sup>3</sup> is hydrogen,

$R^4$  is  $-NR^{4-1}R^{4-2}$ ;

$R^{4-1}$  is selected from the group consisting of hydrogen, alkyl of 1-8 carbon atoms, alkenyl of 2-8 carbon atoms, alkynyl of 2-8 carbon atoms and haloalkyl of 1-8 carbon atoms;

$R^{4-2}$  is selected from the group consisting of hydrogen, alkyl of 1-8 carbon atoms, alkenyl of 2-8 carbon atoms, alkynyl of 2-8 carbon atoms, haloalkyl of 1-8 carbon atoms, aryl of 6-10 carbon atoms, heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms, 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, wherein said aryl, heteroaryl, heterocycloalkyl or heterocycloalkenyl may be substituted with one to three substituents selected from the group consisting of nitro, nitrile, hydroxy, halogen, acyl of 1-6 carbon atoms, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms and haloalkoxy of 1-6 carbon atoms, or

$R^{4-1}$  and  $R^{4-2}$  form a 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, wherein said heterocycloalkyl may be substituted with one to three substituents selected from the group consisting of nitro, nitrile, hydroxy, halogen, acyl of 1-6 carbon atoms, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms and haloalkoxy of 1-6 carbon atoms,

$R^5$  and  $R^6$  are independently selected from cycloalkyl of 3-8 carbon atoms, cycloalkenyl of 4-8 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms, all of which may be substituted with 1-3 of  $R^{10}$ ,

or

$R^5$  and  $R^6$  are independently selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of  $R^{10}$ , A- $R^{23}$ , A-NR<sup>24</sup>R<sup>25</sup>, C(=O)R<sup>24</sup>, C(=O)OR<sup>24</sup>, C(=O)NR<sup>24</sup>R<sup>25</sup>, S(=O)<sub>2</sub>R<sup>26</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, or A-C(=O)NR<sup>24</sup>R<sup>25</sup>,

or

R<sup>5</sup> and R<sup>6</sup> are independently selected from hydrogen, halogen, nitrile, nitro, hydroxy, alkyl of 1-8 carbon atoms, alkenyl of 2-8 carbon atoms, alkynyl of 2-8 carbon atoms, haloalkyl of 1-8 carbon atoms, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, cycloalkoxy of 3-8 carbon atoms, A-R<sup>23</sup>, A(OR<sup>22</sup>)-R<sup>23</sup>, NR<sup>27</sup>R<sup>28</sup>, A-NR<sup>27</sup>R<sup>28</sup>, A-Q-R<sup>29</sup>, Q-R<sup>29</sup>, Q-A-NR<sup>24</sup>R<sup>25</sup>, C(=O)R<sup>24</sup>, C(=O)OR<sup>24</sup>, C(=O)NR<sup>24</sup>R<sup>25</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, and A-C(=O)NR<sup>24</sup>R<sup>25</sup>;

Q is selected from O and S(=O)<sub>0-2</sub>;

R<sup>22</sup> is selected from hydrogen, alkyl of 1-8 carbon atoms, haloalkyl of 1-8 carbon atoms, and cycloalkyl of 3-8 carbon atoms;

R<sup>23</sup> is selected from hydroxy, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, and cycloalkoxy of 3-8 carbon atoms, or

R<sup>23</sup> is selected from cycloalkyl of 3-8 carbon atoms, cycloalkenyl of 4-8 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>23</sup> is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>;

with the proviso for A(OR<sup>22</sup>)-R<sup>23</sup> that when R<sup>23</sup> is selected from hydroxy, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, and cycloalkoxy of 3-8 carbon atoms, A is not CH;

R<sup>24</sup> and R<sup>25</sup> are independently selected from hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, and A-R<sup>23</sup>, or

R<sup>24</sup> and R<sup>25</sup> are independently selected from cycloalkyl of 3-6 carbon atoms, cycloalkenyl of 3-6 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-

4 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>24</sup> and R<sup>25</sup> are independently selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>24</sup> and R<sup>25</sup> combine, together with the nitrogen atom to which they are attached, to form a 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, a 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, or a heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), all of which may be substituted with 1-3 of R<sup>10</sup>;

R<sup>26</sup> is selected from alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A(OR<sup>22</sup>)-R<sup>23</sup>, and A-R<sup>23</sup>, or

R<sup>26</sup> is selected from cycloalkyl of 3-6 carbon atoms, cycloalkenyl of 3-6 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>26</sup> is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>27</sup> is selected from hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, and A-R<sup>23</sup>, or

R<sup>27</sup> is selected from cycloalkyl of 3-6 carbon atoms, cycloalkenyl of 3-6 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>27</sup> is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>28</sup> is selected from hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A-R<sup>23</sup>, C(=O)R<sup>24</sup>, C(=O)OR<sup>26</sup>, C(=O)NR<sup>25</sup>R<sup>30</sup>, S(=O)<sub>2</sub>R<sup>26</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, and A-C(=O)NR<sup>24</sup>R<sup>25</sup>, or

R<sup>28</sup> is selected from cycloalkyl of 3-6 carbon atoms, cycloalkenyl of 3-6 carbon atoms, aryl of 6-10 carbon atoms, heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>28</sup> is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>30</sup> is selected from alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A(OR<sup>22</sup>)-R<sup>23</sup>, and A-R<sup>23</sup>, or

R<sup>30</sup> is selected from cycloalkyl of 3-6 carbon atoms, cycloalkenyl of 3-6 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>30</sup> is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>25</sup> and R<sup>30</sup> combine, together with the nitrogen atom to which they are attached, to form a 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, a 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, or a heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms, all of which may be substituted with 1-3 of R<sup>10</sup>;

R<sup>29</sup> is selected from alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A-R<sup>23</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, A-C(=O)NR<sup>24</sup>R<sup>25</sup>, A-NR<sup>27</sup>R<sup>28</sup>, or

R<sup>29</sup> is selected from cycloalkyl of 3-6 carbon atoms, cycloalkenyl of 3-6 carbon atoms, aryl of 6-10 carbon atoms, heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N, S(=O)<sub>0-2</sub>, and O, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>29</sup> is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, O, S(=O)<sub>0-2</sub>, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>7</sup> is selected from cycloalkyl of 3-8 carbon atoms, cycloalkenyl of 4-8 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms, all of which may be substituted with 1-3 of R<sup>10</sup>,

or

$R^7$  is selected from 5-7 membered heterocycloalkyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O and 5-7 membered heterocycloalkenyl of 3-6 carbon atoms and 1-2 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, wherein said heterocycloalkyl and said heterocycloalkenyl may further be fused with phenyl or a 5-6 membered heteroaryl of 2-5 carbon atoms and 1-3 heteroatoms selected from N, S(=O)<sub>0-2</sub> and O, and/or wherein one or more of the carbon atoms in said heterocycloalkyl or heterocycloalkenyl may be oxidized to C(=O), wherein said heterocycloalkyl or said heterocycloalkenyl may be substituted with 1-3 of  $R^{10}$ , A(OR<sup>22</sup>)-R<sup>23</sup>, A-R<sup>23</sup>, A-NR<sup>24</sup>R<sup>25</sup>, C(=O)R<sup>24</sup>, C(=O)OR<sup>24</sup>, C(=O)NR<sup>24</sup>R<sup>25</sup>, S(=O)<sub>2</sub>R<sup>26</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, or A-C(=O)NR<sup>24</sup>R<sup>25</sup>,

or

$R^7$  is selected from hydrogen, nitrile, nitro, hydroxy, alkyl of 1-8 carbon atoms, alkenyl of 2-8 carbon atoms, alkynyl of 2-8 carbon atoms, haloalkyl of 1-8 carbon atoms, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, cycloalkoxy of 3-8 carbon atoms, A-R<sup>23</sup>, A(OR<sup>22</sup>)-R<sup>23</sup>, NR<sup>27</sup>R<sup>28</sup>, A-NR<sup>27</sup>R<sup>28</sup>, A-Q-R<sup>29</sup>, Q-R<sup>29</sup>, Q-A-NR<sup>24</sup>R<sup>25</sup>, C(=O)R<sup>24</sup>, C(=O)OR<sup>24</sup>, C(=O)NR<sup>24</sup>R<sup>25</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, and A-C(=O)NR<sup>24</sup>R<sup>25</sup>;

and a pharmaceutically acceptable salt thereof,

with the proviso that the compound is not 1-(3-chlorophenyl)- 4-(dimethylamino)-1,8-naphthyridin-2(1H)-one or 4-amino-1-phenyl-1,8-naphthyridin-2(1H)-one.

## 2. The compound of claim 1, wherein

$R^1$  is selected from aryl of 6 or 10 carbon atoms, which may be substituted with 1-3 of  $R^{10}$ ;

$R^{10}$  is selected from nitro, nitrile, hydroxy, halogen, acyl of 1-6 carbon atoms, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms, haloalkoxy of 1-6 carbon atoms, cycloalkoxy of 3-6 carbon atoms, phenyl, heteroaryl selected from thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl and isoquinolinyl, NR<sup>11</sup>R<sup>12</sup>, C(=O)OR<sup>11</sup>, C(=O)NHR<sup>11</sup>, NHC(=O)R<sup>13</sup>, NHS(=O)<sub>2</sub>R<sup>13</sup>, S(=O)<sub>0-2</sub>R<sup>13</sup>, S(=O)<sub>2</sub>NHR<sup>11</sup>, cyclopropyl, cyclopentyl, cyclohexyl, and heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl,

oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl;

R<sup>13</sup> is selected from alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, and cycloalkyl of 3-6 carbon atoms;

R<sup>11</sup> and R<sup>12</sup> are independently selected from hydrogen, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, and cycloalkyl of 3-6 carbon atoms;

A is selected from alkyl of 1-8 carbon atoms and haloalkyl of 1-8 carbon atoms;

R<sup>3</sup> is hydrogen,

R<sup>4</sup> is -NR<sup>4-1</sup>R<sup>4-2</sup>;

R<sup>4-1</sup> is selected from the group consisting of hydrogen, alkyl of 1-8 carbon atoms and haloalkyl of 1-8 carbon atoms;

R<sup>4-2</sup> is selected from the group consisting of hydrogen, alkyl of 1-8 carbon atoms, haloalkyl of 1-8 carbon atoms, aryl of 6 or 10 carbon atoms, heteroaryl selected from thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl, isoquinolinyl, heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said aryl, heteroaryl or heterocycloalkyl may be substituted with one to three substituents selected from the group consisting of nitro, nitrile, hydroxy, halogen, acyl of 1-6 carbon atoms, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms and haloalkoxy of 1-6 carbon atoms, or

R<sup>4-1</sup> and R<sup>4-2</sup> form a heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may be substituted with one to three substituents selected from the group consisting of nitro, nitrile, hydroxy, halogen, acyl of 1-6 carbon atoms, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, alkoxy of 1-6 carbon atoms and haloalkoxy of 1-6 carbon atoms,

$R^5$  and  $R^6$  are independently selected from cycloalkyl of 3-8 carbon atoms, aryl of 6-10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms, all of which may be substituted with 1-3 of  $R^{10}$ ,

or

$R^5$  and  $R^6$  are heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl,

or

$R^5$  and  $R^6$  are independently selected from hydrogen, halogen, nitrile, nitro, hydroxy, alkyl of 1-8 carbon atoms, alkenyl of 2-8 carbon atoms, alkynyl of 2-8 carbon atoms, haloalkyl of 1-8 carbon atoms, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, cycloalkoxy of 3-8 carbon atoms,  $A-R^{23}$ ,  $A(OR^{22})-R^{23}$ ,  $NR^{27}R^{28}$ ,  $A-NR^{27}R^{28}$ ,  $A-Q-R^{29}$ ,  $Q-R^{29}$ ,  $Q-A-NR^{24}R^{25}$ ,  $C(=O)R^{24}$ ,  $C(=O)OR^{24}$ ,  $C(=O)NR^{24}R^{25}$ ,  $A-C(=O)R^{24}$ ,  $A-C(=O)OR^{24}$ , and  $A-C(=O)NR^{24}R^{25}$ ;

$Q$  is selected from O and  $S(=O)_{0-2}$ ;

$R^{22}$  is selected from hydrogen, alkyl of 1-8 carbon atoms, haloalkyl of 1-8 carbon atoms, and cycloalkyl of 3-8 carbon atoms;

$R^{23}$  is selected from hydroxy, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, and cycloalkoxy of 3-8 carbon atoms, or

$R^{23}$  is selected from cycloalkyl of 3-8 carbon atoms, aryl of 6 or 10 carbon atoms, and heteroaryl of 2-9 carbon atoms and 1-4 heteroatoms selected from N,  $S(=O)_{0-2}$ , and O, all of which may be substituted with 1-3 of  $R^{10}$ , or

$R^{23}$  is heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, wherein said heterocycloalkyl may be substituted with 1-3 of  $R^{10}$ ;

with the proviso for A(OR<sup>22</sup>)-R<sup>23</sup> that when R<sup>23</sup> is selected from hydroxy, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, and cycloalkoxy of 3-8 carbon atoms, A is not CH;

R<sup>24</sup> and R<sup>25</sup> are independently selected from hydrogen, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, and A-R<sup>23</sup>, or

R<sup>24</sup> and R<sup>25</sup> are independently selected from cyclopropyl, cyclopentyl, cyclohexyl, aryl of 6-10 carbon atoms, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl and isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>24</sup> and R<sup>25</sup> are heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, wherein said heterocycloalkyl may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>24</sup> and R<sup>25</sup> combine, together with the nitrogen atom to which they are attached, to form a heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>;

R<sup>26</sup> is selected from alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A(OR<sup>22</sup>)-R<sup>23</sup>, and A-R<sup>23</sup>, or

R<sup>26</sup> is selected from cyclopropyl, cyclopentyl, cyclohexyl, aryl of 6 or 10 carbon atoms, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl and isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>26</sup> is heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl,

pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, wherein said heterocycloalkyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>27</sup> is selected from hydrogen, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, and A-R<sup>23</sup>, or

R<sup>27</sup> is selected from cyclopropyl, cyclopentyl, cyclohexyl, aryl of 6-10 carbon atoms, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl, isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>27</sup> is heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihdropyridinyl, 1,4-dihdropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, wherein said heterocycloalkyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>28</sup> is selected from hydrogen, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A-R<sup>23</sup>, C(=O)R<sup>24</sup>, C(=O)OR<sup>26</sup>, C(=O)NR<sup>25</sup>R<sup>30</sup>, S(=O)<sub>2</sub>R<sup>26</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, and A-C(=O)NR<sup>24</sup>R<sup>25</sup>, or

R<sup>28</sup> is selected from cyclopropyl, cyclopentyl, cyclohexyl, aryl of 6-10 carbon atoms, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl, isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>28</sup> is heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihdropyridinyl, 1,4-dihdropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, wherein said heterocycloalkyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>30</sup> is selected from alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A(OR<sup>22</sup>)-R<sup>23</sup>, and A-R<sup>23</sup>, or

R<sup>30</sup> is selected from cyclopropyl, cyclopentyl, cyclohexyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl,

benzothiophenyl, quinolinyl, isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>30</sup> is heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, wherein said heterocycloalkyl may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>25</sup> and R<sup>30</sup> combine, together with the nitrogen atom to which they are attached, to form a heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide, thiomorpholinyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl, orisoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>;

R<sup>29</sup> is selected from alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, A-R<sup>23</sup>, A-C(=O)R<sup>24</sup>, A-C(=O)OR<sup>24</sup>, A-C(=O)NR<sup>24</sup>R<sup>25</sup>, A-NR<sup>27</sup>R<sup>28</sup>, or

R<sup>29</sup> is selected from cyclopropyl, cyclopentyl, cyclohexyl, aryl of 6-10 carbon atoms, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>, or

R<sup>29</sup> is heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl, wherein said heterocycloalkyl may be substituted with 1-3 of R<sup>10</sup>;

R<sup>7</sup> is selected from cycloalkyl of 3-8 carbon atoms, aryl of 6-10 carbon atoms, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl, isoquinolinyl, all of which may be substituted with 1-3 of R<sup>10</sup>,

or

$R^7$  is heterocycloalkyl selected from tetrahydrofuryl, pyrrolidinyl, pyrrolinyl, piperidinyl, 1,2-dihydropyridinyl, 1,4-dihydropyridinyl, piperazinyl, morpholinyl, morpholinyl-N-oxide and thiomorpholinyl, wherein said heterocycloalkyl may further be fused with phenyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, pyridyl, pyrimidyl, pyridazinyl, indolyl, indazolyl, benzofuranyl, benzothiophenyl, quinolinyl, isoquinolinyl, and/or wherein one or more of the carbon atoms in said heterocycloalkyl may be oxidized to C(=O), wherein said heterocycloalkyl may be substituted with 1-3 of  $R^{10}$ ,  $A(OR^{22})-R^{23}$ ,  $A-R^{23}$ ,  $A-NR^{24}R^{25}$ ,  $C(=O)R^{24}$ ,  $C(=O)OR^{24}$ ,  $C(=O)NR^{24}R^{25}$ ,  $S(=O)_2R^{26}$ ,  $A-C(=O)R^{24}$ ,  $A-C(=O)OR^{24}$ , or  $A-C(=O)NR^{24}R^{25}$ ,

or

$R^7$  is selected from hydrogen, nitrile, nitro, hydroxy, alkyl of 1-8 carbon atoms, haloalkyl of 1-8 carbon atoms, alkoxy of 1-8 carbon atoms, haloalkoxy of 1-8 carbon atoms, cycloalkoxy of 3-8 carbon atoms,  $A-R^{23}$ ,  $A(OR^{22})-R^{23}$ ,  $NR^{27}R^{28}$ ,  $A-NR^{27}R^{28}$ ,  $A-Q-R^{29}$ ,  $Q-R^{29}$ ,  $Q-A-NR^{24}R^{25}$ ,  $C(=O)R^{24}$ ,  $C(=O)OR^{24}$ ,  $C(=O)NR^{24}R^{25}$ ,  $A-C(=O)R^{24}$ ,  $A-C(=O)OR^{24}$ , and  $A-C(=O)NR^{24}R^{25}$ ;

and pharmaceutically acceptable salts thereof,

with the proviso that the compound is not 1-(3-chlorophenyl)- 4-(dimethylamino)-1,8-naphthyridin-2(1H)-one or 4-amino-1-phenyl-1,8-naphthyridin-2(1H)-one.

3. The compound of claim 1, wherein

$R^1$  is phenyl, which may be substituted with 1-3 of  $R^{10}$ ;

$R^{10}$  is selected from nitro, nitrile, hydroxy, halogen, trifluoromethyl, methylcarbonyl, ethylcarbonyl, methyl, ethyl, propyl, isopropyl, butyl, t-butyl, methoxy, ethoxy, propyloxy or isopropyloxy;

$R^3$  is hydrogen,

$R^4$  is  $-NR^{4-1}R^{4-2}$ ;

$R^{4-1}$  is selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, butyl and t-butyl;

$R^{4-2}$  is phenyl, wherein said phenyl may be substituted with one to three substituents selected from the group consisting of nitro, nitrile, hydroxy, fluoro, chloro,

methylcarbonyl, ethylcarbonyl, methyl, ethyl, propyl, isopropyl, butyl, t-butyl, methoxy, ethoxy, propyloxy or isopropyloxy; or

R<sup>4-1</sup> and R<sup>4-2</sup> form a heterocycloalkyl selected from piperazinyl, morpholinyl and thiomorpholinyl, wherein said heterocycloalkyl may be substituted with one to three substituents selected from the group consisting of nitro, nitrile, hydroxy, fluoro, chloro, methylcarbonyl, ethylcarbonyl, methyl, ethyl, propyl, isopropyl, butyl, t-butyl, methoxy, ethoxy, propyloxy and isopropyloxy,

R<sup>5</sup> and R<sup>6</sup> are independently selected from hydrogen, fluoro, chloro, nitrile, nitro, hydroxy, methyl, ethyl, propyl, isopropyl, butyl, t-butyl, trifluoromethyl, methoxy, ethoxy, propyloxy and isopropyloxy;

R<sup>7</sup> is selected from hydrogen, nitrile, nitro, hydroxy, methyl, ethyl, propyl, isopropyl, butyl, t-butyl, trifluoromethyl, methoxy, ethoxy, propyloxy and isopropyloxy;

and pharmaceutically acceptable salts thereof,

with the proviso that the compound is not 1-(3-chlorophenyl)- 4-(dimethylamino)-1,8-naphthyridin-2(1H)-one or 4-amino-1-phenyl-1,8-naphthyridin-2(1H)-one.

4. The compound of claim 1, wherein

R<sup>1</sup> is phenyl, which may be substituted with 1-3 of R<sup>10</sup>;

R<sup>10</sup> is selected from fluoro, chloro and trifluoromethyl;

R<sup>3</sup> is hydrogen,

R<sup>4</sup> is -NR<sup>4-1</sup>R<sup>4-2</sup>;

R<sup>4-1</sup> is selected from the group consisting of hydrogen and methyl;

R<sup>4-2</sup> is phenyl, wherein said phenyl may be substituted with one or two substituents selected from the group consisting of nitrile, fluoro, chloro, methyl, ethyl, methoxy and ethoxy; or

R<sup>4-1</sup> and R<sup>4-2</sup> form a morpholinyl,

R<sup>5</sup> and R<sup>6</sup> are independently selected from hydrogen, fluoro and chloro;

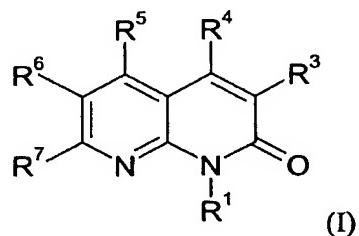
R<sup>7</sup> is selected from hydrogen, fluoro and chloro;

and pharmaceutically acceptable salts thereof,

with the proviso that the compound is not 1-(3-chlorophenyl)- 4-(dimethylamino)-1,8-naphthyridin-2(1H)-one or 4-amino-1-phenyl-1,8-naphthyridin-2(1H)-one.

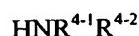
5. A pharmaceutical composition comprising an effective amount of a compound of claim 1, or a pharmaceutically acceptable salt thereof, in combination with a pharmaceutically acceptable carrier.
6. A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 1, or a pharmaceutically acceptable salt thereof, in combination with a pharmaceutically acceptable carrier and one or more pharmaceutical agents.
7. The pharmaceutical composition of claim 6, wherein said pharmaceutical agent is selected from the group consisting of PPAR agonists, sulfonylurea drugs, non-sulfonylurea secretagogues,  $\alpha$ -glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compounds, insulin, anti-obesity agents, HMG CoA reductase inhibitors, nicotinic acid, bile acid sequestrants, bile acid reuptake inhibitors, microsomal triglyceride transport inhibitors, fibrin acid derivatives, lipid lowering drugs, ACAT inhibitors, and anti-hypertensive agents.
8. A method of treating diabetes or diabetes-related disorders comprising the step of administering to a subject in need thereof a therapeutically effective amount of a compound of claim 1.
9. The method of claim 8, wherein said diabetes is selected from the group consisting of type 1 diabetes, type 2 diabetes, maturity-onset diabetes of the young, latent autoimmune diabetes adult, and gestational diabetes.
10. A method of treating Syndrome X comprising the step of administering to a subject in need thereof a therapeutically effective amount of a compound of claim 1.
11. A method of treating diabetes-related disorders comprising the step of administering to a subject in need thereof a therapeutically effective amount of a compound of claim 1.
12. The method of claim 11, wherein said diabetes-related disorder is selected from the group consisting of hyperglycemia, hyperinsulinemia, impaired glucose tolerance, impaired fasting

- glucose, dyslipidemia, hypertriglyceridemia, and insulin resistance.
13. A method of treating diabetes comprising the step of administering to a subject in need thereof a therapeutically effective amount of a compound of claim 1 in combination with one or more pharmaceutical agents.
  14. The method of claim 13, wherein said pharmaceutical agent is selected from the group consisting of PPAR agonists, sulfonylurea drugs, non-sulfonylurea secretagogues,  $\alpha$ -glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compounds, insulin, anti-obesity agents, HMG CoA reductase inhibitors, nicotinic acid, bile acid sequestrants, bile acid reuptake inhibitors, microsomal triglyceride transport inhibitors, fibric acid derivatives, lipid lowering drugs, ACAT inhibitors, and anti-hypertensive agents.
  15. Compounds according to claim 1 for the treatment and/or prophylaxis of diabetes and diabetes-related disorders.
  16. Medicament containing at least one compound according to claim 1 in combination with at least one pharmaceutically acceptable, pharmaceutically safe carrier or excipient.
  17. Use of compounds according to claim 1 for manufacturing a medicament for the treatment and/or prophylaxis of diabetes and diabetes-related disorders.
  18. Medicaments according to claim 16 for the treatment and/or prophylaxis of diabetes.
  19. A process for preparing compounds of the present invention, wherein compounds of formula (I),



wherein R<sup>4</sup> represents a leaving group,

is reacted with a compound of formula



in the presence of a base.

20. The process of claim 19, wherein the leaving group is selected from halogen, tosylate, mesylate, and triflate.
21. The process of claim 20, wherein the leaving group is chlorine.
22. The process of claim 19, wherein the base is lithium bis(trimethylsilyl)amide